CLAIMS

We claim:

- 1. A method for controlling an electrotherapeutic device configured to provide a defibrillation shock or pacing stimuli to a patient, comprising:
 - obtaining and analyzing physical parameters of the patient to determine whether the patient has a heart condition for which an appropriate treatment is either a defibrillation shock or pacing stimuli;
 - automatically determining a magnitude at which to supply the pacing stimuli, based, at least in part, upon the physical parameters, if the appropriate treatment is pacing stimuli; and
 - supplying the pacing stimuli to the patient at the determined magnitude and at a pacing rate.
- 2. The method of claim 1, wherein the step of obtaining and analyzing physical parameters of the patient comprises:
 - comparing the physical parameters to one or more predetermined parameters indicating severe bradycardia.
- 3. The method of claim 1, wherein the step of obtaining and analyzing physical parameters of the patient comprises:
 - comparing the physical parameters to one or more predetermined parameters indicating ventricular standstill.
- 4. The method of claim 1, wherein the step of obtaining and analyzing physical parameters of the patient comprises:
 - comparing the physical parameters to one or more predetermined parameters indicating second degree atrioventricular block.

- 5. The method of claim 1, wherein the step of obtaining and analyzing physical parameters of the patient comprises:
 - comparing the physical parameters to one or more predetermined parameter indicating third degree atrioventricular block.
- 6. The method of claim 1, wherein the step of obtaining and analyzing physical parameters of the patient comprises:
 - comparing the physical parameters to one or more predetermined parameter indicating low cardiac output.
- 7. The method of claim 1, wherein the step of obtaining and analyzing comprises:

 determining whether a defibrillation shock has been delivered to the patient
 within a predetermined period of time.
- 8. The method of claim 1, further comprising:
 obtaining and analyzing updated patient physical parameters.
- 9. The method of claim 8, further comprising:
 - automatically adjusting the magnitude and pacing rate to an updated magnitude and updated pacing rate based, in part, on the updated physical parameters; and
 - supplying the pacing stimuli to the patient at the updated magnitude and at the updated pacing rate.
- 10. The method of claim 8, further comprising:
 - identifying an indication to cease the pacing stimuli, based, in part, on the updated physical parameters; and
 - terminating the discharging of the energy device before the determined time, if an indication to cease the pacing stimuli is indicated.
- 11. The method of claim 10, wherein the step of identifying an indication to cease the pacing includes identifying no electrical capture.

- 12. The method of claim 10, wherein the step of identifying an indication to cease pacing includes identifying no mechanical capture.
- 13. The method of claim 10, wherein the step of identifying an indication to cease pacing includes identifying failure in improvement of cardiac output.
- 14. The method of claim 10, wherein the step of identifying an indication to cease pacing includes identifying adequate spontaneous circulation.
- 15. The method of claim 1 wherein the step of obtaining and analyzing physical parameters of the patient to determine whether the patient has a heart condition appropriately treated with a defibrillation shock or pacing stimuli includes determining whether the patient has a heart condition appropriately treated with a non-electrotherapeutic treatment.
- 16. The method of claim 15, further comprising: indicating to a user that a non-electrotherapeutic treatment is needed.
- 17. The method of claim 16, wherein the step of indicating to a care provider that non-electrotherapeutic treatment is needed includes prompting the user to provide CPR therapy to the patient.
- 18. The method of claim 16, wherein the step of indicating to a care provider that non-electrotherapeutic treatment is needed includes prompting the user to provide drug therapy to the patient.
- 19. The method of claim 16, wherein the step of indicating to a care provider that non-electrotherapeutic treatment is needed includes prompting the user to provide oxygen therapy to the patient.
- 20. The method of claim 16, wherein the step of indicating to a care provider that non-electrotherapeutic treatment is needed includes prompting the user to monitor the patient's SaO₂ level.

- 21. The method of claim 16, wherein the step of indicating to a care provider that nonelectrotherapeutic treatment is needed includes prompting the user to monitor the patient's blood pressure.
- 22. The method of claim 16, wherein the step of indicating to a care provider that non-electrotherapeutic treatment is needed includes prompting the user to monitor the patient's end tidal CO₂ level.
- 23. The method of claim 16, further comprising:

determining a physical status based, in part, on the patient's physical parameters; and

indicating the physical status to a user.

- 24. An external medical device for supplying electroshock therapy to a patient comprising:
 - a plurality of electrodes configured to deliver a defibrillation shock or pacing stimuli to, and sense one or more physical parameters associated with, the patient;
 - an energy storage device coupled to the plurality of electrodes and configured to store a charge; and
 - a controller coupled to the plurality of electrodes and the energy storage device, and configured to:

obtain and analyze physical parameters of the patient; automatically determine a magnitude at which to supply the pacing stimuli, based, at least in part, upon the physical parameters; and supply the pacing stimuli to the patient at the determined magnitude and at a pacing rate.

UTILITY PATENT APPLICATION ATTORNEY DOCKET NO. 009.4001

25. The device of claim 24, wherein the controller is further configured to: obtain and analyze updated patient physical parameters; automatically adjust the magnitude and pacing rate to an updated magnitude and updated pacing rate based, in part, on the updated physical parameters; and supply pacing stimuli to the patient at the updated magnitude and at the updated rate.

26. The device of claim 25, wherein the controller is further configured to: identify an indication to cease the pacing stimuli, based in part on the updated patient physical parameters; and terminate the discharge of the energy device before the predetermined time, if an indication to cease the pacing stimuli is indicated.

- 27. The device of claim 24, wherein the controller is further configured to: indicate to a care provider that further treatment is needed.
- 28. The device of claim 24, wherein the controller is further configured to:

 determine a physical status based, in part, on the patient's physical parameters;
 and
 indicate the physical status to a user.
- 29. The device of claim 24, further comprising:
 a user interface in communication with the controller.

- 30. An external medical device for supplying electroshock therapy to a patient comprising:
 - a plurality of electrodes configured to deliver a defibrillation shock or pacing stimuli to, and sense one or more physical parameters associated with, the patient;
 - an energy storage device coupled to the plurality of electrodes and configured to store a charge; and
 - a controller coupled to the plurality of electrodes and the energy storage device, and configured to:
 - obtain and analyze physical parameters of the patient to determine whether the patient has a heart condition for which an appropriate treatment is either a defibrillation shock or pacing stimuli;
 - automatically determine a magnitude at which to supply the pacing stimuli, based, at least in part, upon the physical parameters; and supply the pacing stimuli to the patient at the determined magnitude and at a pacing rate.
- 31. A method for controlling an electrotherapeutic device configured to provide a defibrillation shock or pacing stimuli to a patient, comprising:
 - obtaining and analyzing physical parameters of the patient to determine whether the patient has a heart condition for which an appropriate treatment is either a defibrillation shock or pacing stimuli;
 - automatically determining a magnitude at which to supply the pacing stimuli, based, at least in part, on whether the device previously provided a defibrillation shock to the patient, if the appropriate treatment is pacing stimuli; and
 - supplying the pacing stimuli to the patient at the determined magnitude and at a pacing rate.